



Contact characteristics

Number of poles	Nr.	3
Rated insulation voltage U_i IEC/EN	V	1000
Rated impulse withstand voltage U_{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current $I_{th} \leq 40^\circ\text{C}$	A	140
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 140
	AC-1 ($\leq 55^\circ\text{C}$)	A 115
	AC-1 ($\leq 70^\circ\text{C}$)	A 100
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A 95
	AC-4 (400V)	A 45
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW 30
	400V	kW 55
	415V	kW 55
	440V	kW 55
	500V	kW 75
	690V	kW 90
	1000V	kW 45
Rated operational current AC-3 ($T \leq 55^\circ\text{C}$)	230V	A 95
	400V	A 95
	415V	A 95
	440V	A 95
	500V	A 95
	690V	A 93
	1000V	A 33
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A 140
	48V	A 140
	75V	A 100
	110V	A 10
	220V	A —
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A 140
	48V	A 140
	75V	A 140
	110V	A 110
	220V	A 12
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	A 140
	48V	A 140

	75V	A	155
	110V	A	120
	220V	A	125
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	140
	48V	A	140
	75V	A	155
	110V	A	140
	220V	A	140
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	140
	48V	A	44
	75V	A	36
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	140
	48V	A	63
	75V	A	60
	110V	A	55
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	140
	48V	A	115
	75V	A	90
	110V	A	85
	220V	A	76
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	140
	48V	A	110
	75V	A	110
	110V	A	105
	220V	A	95
Short-time allowable current for 10s (IEC/EN60947-1)		A	760
Protection fuse			
	gG (IEC)	A	160
	aM (IEC)	A	100
Making capacity (RMS value)		A	1200
Breaking capacity at voltage			
	440V	A	1100
	500V	A	775
	690V	A	745
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	I _{th}	W	8.8
	AC-3	W	4.1
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	I _{bin}	4.4
	max	I _{bin}	5.2
Tightening torque for coil terminal			
	min	Nm	0.8

		max	Nm	1
		min	Ibin	0.59
		max	Ibin	0.74
Conductor section				
	AWG/Kcmil			
		max		2/0
Flexible w/o lug conductor section				
		min	mm ²	1.5
		max	mm ²	70
Flexible c/w lug conductor section				
		min	mm ²	1.5
		max	mm ²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2060
Auxiliary contact characteristics				
Thermal current Ith			A	140
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	1400000
		mechanical load	cycles	15000000
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
		min	V	60
		max	V	110
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
AC average coil consumption at 20°C				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	70...175
		holding	VA	1.7...3.5
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	70...175
		holding	VA	1.7...3.5
	of 60Hz coil powered at 60Hz			

		in-rush	VA	70...175
		holding	VA	1.7...3.5
Dissipation at holding ≤20°C 50Hz			W	1.3...1,5
DC coil operating				
DC rated control voltage		min	V	60
		max	V	110
max			V	110
DC operating voltage				
pick-up		min	%Us	80 Us min
		max	%Us	110 Us max
drop-out		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		in-rush	W	70...80
		holding	W	1.3...1.5
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
		Closing NO	min	ms 45
			max	ms 90
		Opening NO	min	ms 24
			max	ms 60
in DC				
		Closing NO	min	ms 45
			max	ms 85
		Opening NO	min	ms 24
			max	ms 60
UL technical data				
Rated operational voltage AC (UL)			V	600
Yielded mechanical performance				
for three-phase AC motor		200/208V	HP	30
		220/240V	HP	30
		460/480V	HP	60
		575/600V	HP	75
General USE				
Contactor		AC current	A	150
Short-circuit protection fuse, 600V				
High fault		Short circuit current	kA	100
		Fuse rating	A	200
		Fuse class		J
Standard fault		Short circuit current	kA	10
		Fuse rating	A	250

Fuse class RK5

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

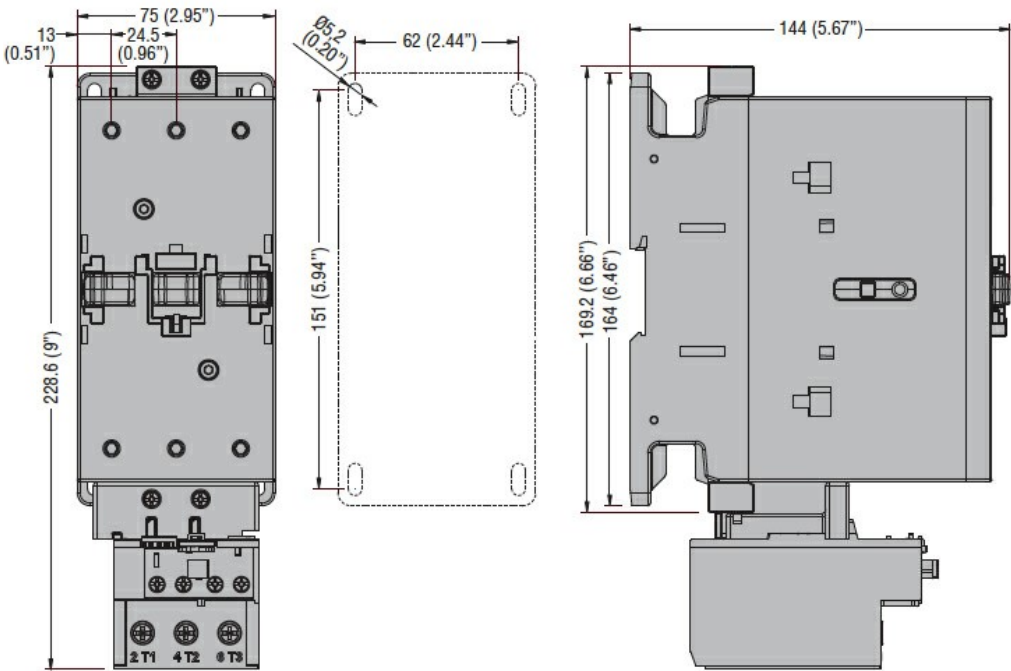
Storage temperature

min	°C	-60
max	°C	+80

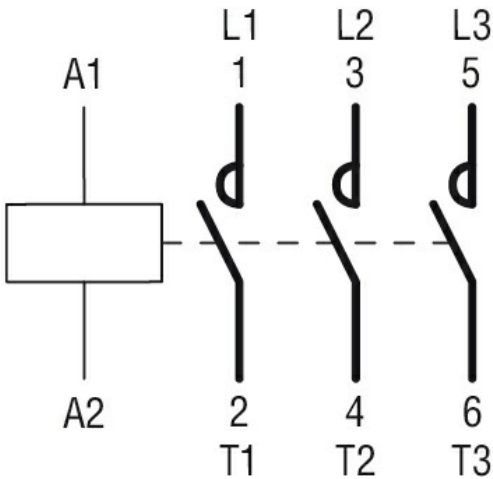
Max altitude

m 3000

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1
CSA C22.2 n° 60947-4-1
IEC/EN 60335-2-89
IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

CSA C22.2 n. 60335-2-40:22 LZGH A2L

CSA C22.2 No. 60335-2-89:21 LZGH A2L

cULus

UL 60335-2-40 LZGH A2L

UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching